



Performance Data Sheet

AE4456E-DS1B

General Information

Model	AE4456E-DS1B	Refrigerant	R-22
Test Condition	EN12900 ASERCOM	Performance Test Voltage	127V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	Motor Type	CSIR

Performance Information

Evap Temp (°F)	Condensing Temperature (°F)							
		80	90	100	110	120	130	140
5	Btu/h	3130	2940	2730	2520	2310	2110	1910
	Watts	405	425	446	466	484	501	515
	Amps	5.87	5.94	6.01	6.10	6.19	6.26	6.32
	Lb/h	38.4	37.3	36.1	34.8	33.4	32.0	30.7
10	Btu/h	3530	3320	3090	2860	2640	2410	2200
	Watts	419	443	466	488	510	529	547
	Amps	5.94	6.02	6.11	6.21	6.32	6.42	6.50
	Lb/h	43.3	42.2	40.9	39.6	38.2	36.7	35.3
15	Btu/h	3960	3720	3480	3230	2980	2730	2500
	Watts	434	459	485	510	535	558	579
	Amps	6.01	6.10	6.21	6.33	6.45	6.58	6.69
	Lb/h	48.6	47.5	46.2	44.7	43.2	41.7	40.2
20	Btu/h	4420	4160	3900	3620	3350	3080	2820
	Watts	447	475	503	531	559	585	610
	Amps	6.07	6.18	6.30	6.44	6.59	6.74	6.87
	Lb/h	54.5	53.2	51.8	50.3	48.7	47.1	45.5
25	Btu/h	4930	4640	4340	4040	3740	3450	3160
	Watts	460	490	521	552	583	612	641
	Amps	6.14	6.25	6.40	6.56	6.73	6.90	7.06
	Lb/h	60.8	59.5	58.0	56.4	54.7	53.0	51.3
30	Btu/h	5470	5150	4830	4500	4170	3840	3520
	Watts	471	504	537	571	605	639	671
	Amps	6.19	6.33	6.49	6.68	6.87	7.07	7.26
	Lb/h	67.8	66.4	64.7	63.0	61.2	59.4	57.5
35	Btu/h	6060	5710	5350	4990	4620	4260	3910
	Watts	481	516	553	590	627	664	700
	Amps	6.25	6.40	6.58	6.79	7.01	7.23	7.45
	Lb/h	75.4	73.8	72.1	70.2	68.3	66.3	64.3
40	Btu/h	6690	6310	5910	5520	5120	4720	4330
	Watts	490	528	567	607	648	688	728
	Amps	6.30	6.47	6.67	6.90	7.14	7.39	7.64
	Lb/h	83.7	82.0	80.1	78.1	76.0	73.9	71.7

45	Btu/h	7370	6950	6520	6080	5650	5210	4780
	Watts	498	538	580	624	667	711	755
	Amps	6.34	6.53	6.75	7.00	7.27	7.55	7.83
	Lb/h	92.8	90.9	88.9	86.7	84.4	82.1	79.8
50	Btu/h	8110	7650	7170	6690	6210	5740	5270
	Watts	504	547	592	638	686	733	781
	Amps	6.37	6.58	6.82	7.10	7.39	7.70	8.01
	Lb/h	103	101	98.4	96.0	93.6	91.1	88.6
55	Btu/h	8900	8390	7870	7350	6830	6310	5790
	Watts	508	554	602	652	703	754	805
	Amps	6.39	6.62	6.89	7.19	7.51	7.85	8.19
	Lb/h	113	111	109	106	104	101	98.1
60	Btu/h	9740	9190	8620	8050	7480	6920	6360
	Watts	511	560	611	664	718	773	828
	Amps	6.40	6.65	6.94	7.27	7.62	7.99	8.37
	Lb/h	125	123	120	117	114	111	108

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.352361E+03	2.918257E+02	6.910270E+00	3.214586E+01
C2	9.184212E+01	1.357837E+00	1.182867E-02	8.712409E-01
C3	7.690374E+00	-2.914125E-02	-4.070631E-02	1.829404E-01
C4	1.014850E+00	-1.773396E-02	-9.215934E-05	9.334680E-03
C5	-2.643920E-01	3.268398E-03	-1.754229E-04	2.365157E-04
C6	-2.469655E-01	2.305092E-02	4.490227E-04	-2.568866E-03
C7	3.463648E-03	-1.489378E-04	-1.707561E-06	7.156670E-05
C8	-5.674405E-03	9.908516E-05	1.774391E-06	-3.477320E-05
C9	-9.871955E-05	2.407765E-04	2.370916E-06	-3.166907E-06
C10	7.484856E-04	-9.383292E-05	-1.407366E-06	6.895467E-06

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature



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Return Gas	20°C (68°F) RETURN GAS	Motor Type	CSIR

Performance Information

Evap Temp (°C)	Condensing Temperature (°C)				
		30	40	50	60
-15	Btu/h	3020	2650	2270	1910
	Watts (Power)	417	454	488	515
	Amps	5.91	6.05	6.20	6.32
	Lb/h	37.8	35.6	33.2	30.7
-10	Btu/h	3730	3300	2860	2440
	Watts (Power)	446	491	534	572
	Amps	6.04	6.23	6.45	6.65
	Lb/h	46.9	44.5	41.9	39.2
-6.7	Btu/h	4260	3780	3290	2810
	Watts (Power)	463	514	564	610
	Amps	6.13	6.36	6.62	6.87
	Lb/h	53.7	51.2	48.4	45.5
-5	Btu/h	4560	4050	3520	3020
	Watts (Power)	472	526	579	629
	Amps	6.17	6.42	6.71	6.99
	Lb/h	57.5	54.9	51.9	48.9
0	Btu/h	5500	4900	4280	3670
	Watts (Power)	495	558	621	682
	Amps	6.30	6.60	6.97	7.33
	Lb/h	69.9	66.9	63.6	60.2
5	Btu/h	6590	5870	5140	4420
	Watts (Power)	515	586	660	733
	Amps	6.40	6.78	7.22	7.68
	Lb/h	84.5	81.0	77.2	73.3
7.2	Btu/h	7120	6340	5550	4780
	Watts (Power)	522	597	676	755
	Amps	6.44	6.85	7.32	7.83
	Lb/h	91.6	87.9	83.9	79.7
10	Btu/h	7830	6980	6120	5270
	Watts (Power)	529	610	695	781
	Amps	6.49	6.93	7.45	8.01
	Lb/h	101	97.5	93.1	88.6

15	Btu/h	9240	8250	7240	6240
	Watts (Power)	539	630	726	824
	Amps	6.54	7.06	7.67	8.33
	Lb/h	121	117	112	106

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	7.001827E+03	3.463168E+02	6.205744E+00	7.437787E+01
C2	2.650501E+02	5.749145E-01	2.039549E-03	2.918922E+00
C3	-3.652089E+01	3.342645E+00	-2.741977E-02	9.343387E-03
C4	3.777125E+00	-9.351049E-02	-6.457472E-04	4.889918E-02
C5	-2.053745E+00	8.106332E-02	2.912007E-04	-7.100950E-03
C6	-5.775945E-01	7.046290E-02	1.262903E-03	-6.506705E-03
C7	2.020000E-02	-8.686052E-04	-9.958496E-06	4.173770E-04
C8	-3.309313E-02	5.778647E-04	1.034825E-05	-2.027973E-04
C9	-5.757324E-04	1.404209E-03	1.382718E-05	-1.846940E-05
C10	4.365168E-03	-5.472336E-04	-8.207759E-06	4.021436E-05

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

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